

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application

**Listing of Claims:**

--Claim 1. (previously presented) A handheld pipette including:

a body portion having a vertical central axis longer than a horizontal central axis and shaped to fit in an operator's hand;

a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to the vertical central axis of said body portion; and

at least one button located on the top of the body portion and operable by a thumb of the operator to effect aspiration and dispensing of fluid through said nozzle portion, the at least one button being aligned with or substantially aligned with the vertical central axis of the body portion.

Claim 2. (original) A handheld pipette as claimed in claim 1 where  $\theta$  is approximately  $70^\circ$  to said central axis.

Claim 3. (original) A handheld pipette as claimed in claim 1 wherein said nozzle angle  $\theta$  is adjustable.

Claim 4. (original) A handheld pipette as claimed in claim 1 wherein said nozzle angle  $\theta$  is such as to permit at least one of the operator's wrist, elbow and shoulder to be in a substantially neutral position when the pipette is performing a pipetting operation.

Claim 5. (original) A handheld pipette as claimed in claim 1 wherein said nozzle is designed to have a tip mounted to the end thereof, and wherein said angle  $\theta$  for the nozzle is such that any tip mounting force is in a direction causing a major component of the force to be applied against and substantially perpendicular to a portion of the operator's hand grasping said body portion which is substantially between a second joint of the operator's fingers and a point slightly behind the operator's knuckles.

Claim 6. (previously presented) A handheld pipette as claimed in claim 1 including a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position of use.

Claim 7. (original) A handheld pipette as claimed in claim 6 wherein said hook is adjustable to change at least one of the angle by which the hook is spaced from the nozzle, the height on the body portion for the point from which the hook extends and the angle of the hook relative to said central axis.

Claim 8. (original) A handheld pipette as claimed in claim 6 wherein said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preference and different hand sizes.

Claims 9-11 (canceled)

Claim 12. (previously presented) A handheld pipette as claimed in claim 1 wherein said button is operated in a direction at a selected angle to said nozzle.

Claim 13. (previously presented) A handheld pipette as claimed in claim 1 wherein said button is ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 14. (original) A handheld pipette as claimed in claim 1 including a button on said body which controls ejection of a tip from said nozzle, said button being ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 15. (original) A handheld pipette as claimed in claim 1 wherein the position and angle  $\theta$  of the nozzle are such that an end of the nozzle adjacent said body portion is closely adjacent the index finger of the operator when properly held.

Claim 16. (amended) A handheld pipette as claimed in claim 1 wherein said body has a stable base permitting said pipette to stand upright on a ~~surgace~~ surface.

Claim 17. (amended) A handheld pipette as claimed in claim 16 wherein said nozzle is operable for receiving a pipette tip and pipette parameters, including at least the angle  $\theta$  of said nozzle to an axis of said body portion and length of said tip affixed to said nozzle, are selected such that said tip does not touch said surface.

Claim 18. (original) A handheld pipette as claimed in claim 1 wherein said body portion has a bottom which is removable at least in part to provide access to the pipette.

Claim 19. (original) A handheld pipette as claimed in claim 1 including an adapter selectively mountable to said body portion, said adapter adjusting the size of said body portion to better fit operator hand size.

Claim 20. (original) A handheld pipette as claimed in claim 1 including padding on at least a portion of said body portion.

Claim 21. (original) A handheld pipette as claimed in claim 1 wherein portions of said pipette which come in contact with the operator's hand are ergonomically designed to minimize contact pressure for the operator's hand during operation of the pipette.

Claim 22. (original) A handheld pipette as claimed in claim 21 wherein portions of said pipette which come in contact with the operator's hand are ergonomically designed so that contact pressure at no point on said pipette exceeds 14 psi.

Claim 23. (original) A handheld pipette as claimed in claim 1 wherein said nozzle portion extends from a point on an upper section of said body portion.

Claim 24. (original) A handheld pipette as claimed in claim 1 wherein said body portion is shaped and said nozzle portion is positioned such that when the pipette is held in an operating position, the nozzle portion is at an angle substantially perpendicular to the operator's forearm.

Claim 25. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

a body portion shaped to fit in an operator's hand;

a nozzle portion extending from a first point on an upper section of said body portion;

and

a hook extending from a second point on the upper section of said body portion, said second point being angularly spaced by an angle  $\Phi$  from said first point.

Claim 26. (original) A handheld pipette as claimed in claim 25 wherein said hook is adjustable to change at least one of the angle by which the hook is spaced from the nozzle, the height on the body portion for the point from which the hook extends and the angle of the hook relative to a central axis of said body portion.

Claim 27. (original) A handheld pipette as claimed in claim 26 wherein the angular spacing between said nozzle and hook is adjustable.

Claim 28. (original) A handheld pipette as claimed in claim 25 wherein said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preferences and different hand sizes.

Claim 29. (original) A handheld pipette as claimed in claim 25 including an adapter attachable to said hook to accommodate at least one of user preferences and different hand sizes.

Claim 30. (previously presented) A handheld pipette including:

a body portion having a vertical central axis longer than a horizontal central axis and shaped to fit in an operator's hand;

a nozzle portion extending from a point on said body portion and at a downward facing angle  $\theta$  to the vertical central axis of said body portion, said body portion being shaped and said nozzle portion being positioned such that when the pipette is held in an operating position, the nozzle portion is at an angle substantially perpendicular to the operator's forearm; and

at least one button located on the top of the body portion and operable by a thumb of the operator to effect aspiration and dispensing of fluid through said nozzle portion, the at least one button being aligned with or substantially aligned with the vertical central axis of the body portion.

Claim 31. (previously presented) A handheld pipette including:

a body portion having a vertical central axis longer than a horizontal central axis and shaped to fit in an operator's hand;

a nozzle portion extending from a point on said body portion and at a downward facing angle  $\theta$  to the vertical central axis of said body portion, said body portion being shaped and said nozzle portion being positioned such that when the pipette is held in an operating position, any force applied to mount a tip to the nozzle is in a direction causing a major component of the

force to be applied against and substantially perpendicular to a portion of the operator's hand grasping said body portion which is substantially between a second joint of the operator's fingers and a point slightly behind the operator's knuckles; and

at least one button located on the top of the body portion and operable by a thumb of the operator to effect aspiration and dispensing of fluid through said nozzle portion, the at least one button being aligned with or substantially aligned with the vertical central axis of the body portion.

Claim 32. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

a body portion shaped to fit in an operator's hand; and

a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion, wherein

said nozzle angle  $\theta$  is adjustable.

Claim 33. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

a body portion shaped to fit in an operator's hand;

a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion; and

a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position of use.

Claim 34. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

- a body portion shaped to fit in an operator's hand;
- a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion; and
- a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position of use, wherein said hook is adjustable to change at least one of the angle by which the hook is spaced from the nozzle, the height on the body portion for the point from which the hook extends and the angle of the hook relative to said central axis.

Claim 35. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

- a body portion shaped to fit in an operator's hand;
- a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion; and
- a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position of use, wherein



said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preference and different hand sizes.

Claim 36. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

- a body portion shaped to fit in an operator's hand;
- a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion; and
- an adapter selectively mountable to said body portion, said adapter adjusting the size of said body portion to better fit operator hand size.

Claim 37. (amended) A handheld pipette operable for aspirating and dispensing fluid including:

- a body portion shaped to fit in an operator's hand;
- a nozzle portion extending from a point on said body portion and at a downward angle  $\theta$  of approximately  $60^\circ$  to  $80^\circ$  to a central axis of said body portion; and
- padding on at least a portion of said body portion.

Claim 38. (previously presented) The handheld pipette as claimed in claim 30, wherein  $\theta$  is approximately  $70^\circ$  to said long central axis.

Claim 39. (previously presented) The handheld pipette as claimed in claim 30, wherein

said nozzle angle  $\theta$  is adjustable.

Claim 40. (previously presented) The handheld pipette as claimed in claim 30, wherein said nozzle angle  $\theta$  is such as to permit at least one of the operator's wrist, elbow and shoulder to be in a substantially neutral position when the pipette is performing a pipetting operation.

Claim 41. (previously presented) The handheld pipette as claimed in claim 30, wherein said nozzle is designed to have a tip mounted to the end thereof, and wherein said angle  $\theta$  for the nozzle is such that any tip mounting force is in a direction causing a major component of the force to be applied against and substantially perpendicular to a portion of the operator's hand grasping said body portion which is substantially between a second joint of the operator's fingers and a point slightly behind the operator's knuckles.

Claim 42. (previously presented) The handheld pipette as claimed in claim 30 including a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position for use.

Claim 43. (previously presented) The handheld pipette as claimed in claim 42, wherein said hook is adjustable to change at least one of the angle by which the hook is spaced from the nozzle, the height on the body portion for the point from which the hook extends and the angle of the hook relative to said long central axis.

Claim 44. (previously presented) The handheld pipette as claimed in claim 42, wherein said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preferences and different hand sizes.

Claim 45. (previously presented) The handheld pipette as claimed in claim 30, wherein said button is operated in a direction at a selected angle to said nozzle.

Claim 46. (previously presented) The handheld pipette as claimed in claim 30, wherein said button is ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 47. (previously presented) The handheld pipette as claimed in claim 30 including a button on said body which controls ejection of a tip from said nozzle, said button being ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 48. (previously presented) The handheld pipette as claimed in claim 30, wherein the position and angle  $\theta$  of the nozzle are such that an end of the nozzle adjacent said body portion is closely adjacent the index finger of the operator when properly held.

Claim 49. (previously presented) The handheld pipette as claimed in claim 30, wherein

said body has a stable base permitting said pipette to stand upright on a surface.

Claim 50. (previously presented) The handheld pipette as claimed in claim 49, wherein pipette parameters, including at least the angle  $\theta$  of said nozzle to an axis of said body portion and a length of a tip affixed to said nozzle, are selected such that said tip does not touch said surface.

Claim 51. (previously presented) The handheld pipette as claimed in claim 30, wherein said body portion has a bottom which is removable at least in part to provide access to the pipette.

Claim 52. (previously presented) The handheld pipette as claimed in claim 30 including an adapter selectively mountable to said body portion, said adapter adjusting the size of the said body portion to better fit operator hand size.

Claim 53. (previously presented) The handheld pipette as claimed in claim 30 including padding on at least a portion of said body portion.

Claim 54. (previously presented) The handheld pipette as claimed in claim 30, wherein portions of said pipette which come in contact with the operator's hand are ergonomically designed to minimize contact pressure for the operator's hand during operation of the pipette.

Claim 55. (previously presented) The handheld pipette as claimed in claim 54, wherein

portions of said pipette which come in contact with the operator's hand are ergonomically designed so that contact pressure at no point on said pipette exceeds 14 psi.

Claim 56. (previously presented) The handheld pipette as claimed in claim 30, wherein said nozzle portion extends from a point on an upper section of the said body portion.

Claim 57. (previously presented) The handheld pipette as claimed in claim 30, wherein said body portion is shaped and said nozzle portion is positioned such that when the pipette is held in an operating position, the nozzle portion is at an angle substantially perpendicular to the operator's forearm.

Claim 58. (previously presented) The handheld pipette as claimed in claim 31, wherein  $\theta$  is approximately  $70^\circ$  to said long central axis.

Claim 59. (previously presented) The handheld pipette as claimed in claim 31, wherein said nozzle angle  $\theta$  is adjustable.

Claim 60. (previously presented) The handheld pipette as claimed in claim 31, wherein said nozzle angle  $\theta$  is such as to permit at least one of the operator's wrist, elbow and shoulder to be in a substantially neutral position when the pipette is performing a pipetting operation.

Claim 61. (previously presented) The handheld pipette as claimed in claim 31, wherein

said nozzle is designed to have a tip mounted to the end thereof, and wherein said angle  $\theta$  for the nozzle is such that any tip mounting force is in a direction causing a major component of the force to be applied against and substantially perpendicular to a portion of the operator's hand grasping said body portion which is substantially between a second joint of the operator's fingers and a point slightly behind the operator's knuckles.

Claim 62. (previously presented) The handheld pipette as claimed in claim 31 including a hook extending from a point on said body portion which is sufficiently angularly spaced from the point from which said nozzle extends to permit the hook to fit over a selected portion of the operator's hand when the pipette is being held by the operator in a position for use.

Claim 63. (previously presented) The handheld pipette as claimed in claim 62, wherein said hook is adjustable to change at least one of the angle by which the hook is spaced from the nozzle, the height on the body portion for the point from which the hook extends and the angle of the hook relative to said long central axis.

Claim 64. (previously presented) The handheld pipette as claimed in claim 62, wherein said hook is removably mounted to said body portion, said hook being replaceable with a hook of different size/shape to accommodate at least one of user preferences and different hand sizes.

Claim 65. (previously presented) The handheld pipette as claimed in claim 31, wherein said button is operated in a direction at a selected angle to said nozzle.

Claim 66. (previously presented) The handheld pipette as claimed in claim 31, wherein said button is ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 67. (previously presented) The handheld pipette as claimed in claim 31 including a button on said body which controls ejection of a tip from said nozzle, said button being ergonomically shaped to minimize contact pressure on the operator's hand when the button is operated.

Claim 68. (previously presented) The handheld pipette as claimed in claim 31, wherein the position and angle  $\theta$  of the nozzle are such that an end of the nozzle adjacent said body portion is closely adjacent the index finger of the operator when properly held.

Claim 69. (previously presented) The handheld pipette as claimed in claim 1, wherein said body has a stable base permitting said pipette to stand upright on a surface.

Claim 70. (previously presented) The handheld pipette as claimed in claim 69, wherein pipette parameters, including at least the angle  $\theta$  of said nozzle to an axis of said body portion and a length of a tip affixed to said nozzle, are selected such that said tip does not touch said surface.

Claim 71. (previously presented) The handheld pipette as claimed in claim 31, wherein

said body portion has a bottom which is removable at least in part to provide access to the pipette.

Claim 72. (previously presented) The handheld pipette as claimed in claim 31 including an adapter selectively mountable to said body portion, said adapter adjusting the size of the said body portion to better fit operator hand size.

Claim 73. (previously presented) The handheld pipette as claimed in claim 31 including padding on at least a portion of said body portion.

Claim 74. (previously presented) The handheld pipette as claimed in claim 31, wherein portions of said pipette which come in contact with the operator's hand are ergonomically designed to minimize contact pressure for the operator's hand during operation of the pipette.

Claim 75. (previously presented) The handheld pipette as claimed in claim 74, wherein portions of said pipette which come in contact with the operator's hand are ergonomically designed so that contact pressure at no point on said pipette exceeds 14 psi.

Claim 76. (previously presented) The handheld pipette as claimed in claim 31, wherein said nozzle portion extends from a point on an upper section of the said body portion.

Claim 77. (previously presented) The handheld pipette as claimed in claim 31, wherein



said body portion is shaped and said nozzle portion is positioned such that when the pipette is held in an operating position, the nozzle portion is at an angle substantially perpendicular to the operator's forearm.--